

sour, salty. Of the 3121 persons who volunteered to taste, 895 found the mannose tablets tasteless, 1120 said they were sweet, 352 declared them bitter, 93 called them sour, and 38 tasted them as salty.

Combinations of tastes are possible to a good many persons. Two or more tastes may come either successively or simultaneously.

Of successive tastes, 90 were reported as bitter then sweet, 12 as bitter then sour, 14 as bitter then salty, 286 as sweet then bitter, 40 as sweet then sour, 41 as sweet then salty, 9 as sour then bitter,

18 as sour then sweet, 2 as sour then salty, 6 as salty then bitter, 6 as salty then sweet, 2 as salty then sour.

Persons who got two tastes at the same time registered: 46 bitter-sweet, 5 bitter-sour, 3 bitter-salty, 13 sweet-sour, 7 sweet-salty.

Triple tastes were represented by: 13 bitter-sweet-sour, 8 bitter-sweet-salty and 2 sweet-sour-salty. Two other possible combinations, sour-salty and sweet-sour-salty, found no representative tasters among the group tested.

*Science News Letter, January 28, 1939*

#### MEDICINE

## Distinction Drawn Between 'Flu and Similar Maladies

### British Scientists Who First Isolated 'Flu Virus Prepare List of Differentiating Symptoms for Doctors

**A**LL IS NOT influenza that goes by that name, as even the layman may have begun to suspect. There has been a tendency in recent years, however, to label as influenza almost any attack of cough and cold with fever, especially if such attacks are prevalent in the community.

Since the virus of influenza has been isolated, the diagnosis in any particular case could be clinched by laboratory examination of material washed from the nose and throat of the patient. If the virus is found in this material, there is no doubt the patient really has influenza. Such procedures are not available to the majority of patients and their physicians, who must consequently still depend on clinical symptoms for making diagnoses.

The difficulty of distinguishing true influenza from other ailments with similar symptoms has been a problem not only for physicians treating patients but for the medical scientists seeking the cause and means of conquering influenza. To simplify the matter, the British scientists who first isolated the influenza virus, Drs. W. Smith, C. H. Andrewes and P. P. Laidlaw, called in the aid of some practising physicians, Drs. C. H. Stuart-Harris, D. K. M. Chalmers, E. G. H. Cowan and D. L. Hughes. Between them they have drawn up a table of signs that differentiate true influenza from what they call "febrile catarrh," which might be translated as cold and cough with fever.

In influenza, the onset is sudden, con-

stitutional symptoms predominate, the cough is short and dry and the voice husky, while in the febrile catarrhs the onset is insidious, local nose and throat symptoms predominate, cough is paroxysmal and productive and the voice is hoarse. The white blood cell count is said not to be diagnostic. Physicians will find other distinguishing features given in the special report of the British Medical Research Council and summarized in the *Canadian Medical Association Journal*.

*Science News Letter, January 28, 1939*

#### ANTHROPOLOGY

### Primitives Reckon Time; No Group Without It

**P**RIMITIVE people have their own sufficient ways of reckoning time. So it appears from a study of the Tena Indians in the Alaskan Yukon region, reported by Rev. Robert J. Sullivan, S. J., of Weston College in Massachusetts.

He finds that these Indians in their native state did not divide the day into hours. It never occurred to them to mark off a day by mealtimes, because they ate after rising and before going to bed, and took snacks at other times, provided they could find something to eat. Incidentally—though it has nothing to do with time—they called the morning meal "we eat" and the evening meal "we eat again."

Recurring day and night they were aware of. And sometimes a journey would be referred to as so many "sleeps" away. But in their aboriginal scheme of things the Tena Indians had no idea of a week or any other grouping of days into a larger unit.

They measured time from such broad landmarks as midwinter, when there would be great festivities, and midsummer, and the time when fish swam back.

The arrival of white men brought Tena Indians new time ideas to go with new customs. When missionaries taught the Indians to set aside Sunday as a day of rest, they had, for the first time, a reason for counting off a measured week.

To keep track of Sundays, Christianized Indians learned English day names. But they have also coined Indian names for four days. They call Sunday "the day." Monday is "the day after the day." Saturday is "the day before the day." Friday is named "when we do not eat meat."

Whether human beings have a sense of time remains to be fought out by philosophers, says Father Sullivan, but every human society has points of reference to which past and present and future happenings are related. Every group uses time in its order of living.

*Science News Letter, January 28, 1939*

#### CONSERVATION

### New Museum Exhibits Teach Conservation

**T**HE PICNIC: a Tragedy in Three Scenes, might appropriately be the title for one of the exhibits in the new Spaulding Hall of Conservation, recently opened at the Buffalo Museum of Science.

The central group shows a springtime scene before the coming of the picnickers. Trilliums, violets, spring beauties and other wildflowers carpet the ground, under the spreading boughs of a flowering dogwood in full bloom. A chipmunk dances on a log; songbirds are in the trees.

To one side is a smaller-scale panel showing the same spot just after a careless picnic party has left. The wildflowers have been ripped up or trampled down. The boughs are torn away from the dogwood. The place is littered with tin cans, a discarded newspaper, miscellaneous garbage. Worst of all, the campfire has been left burning.

At the other side, a similar panel shows the tragic third scene. The spring breeze has fanned the neglected fire. It has



#### HAVOC OF CARELESSNESS

*More graphic than a thousand pages of print or a thousand hours of preaching, is the conservation lesson brought home by these three scenes recently unveiled at the Buffalo Museum of Science.*

spread, feeding first on dead leaves, then on branches and brush, finally killing the trees and destroying or driving out all birds and other animals. Appropriate labels point the moral.

Other exhibits in the new hall include an autumn group and a bog group, each showing wildflowers and animal life appropriate to place and season. There is also a "behind-the-scenes" exhibit which shows all the stages in the difficult and intricate technique of making lifelike wax models of flowers.

The new hall was made possible through a gift of \$10,000 from Mr. and Mrs. Harry B. Spaulding of Buffalo. The art work was executed by Paul and George Marchand, under the supervision of Director Carlos E. Cummings.

*Science News Letter, January 28, 1939*

#### PUBLIC HEALTH

### 1938 Birth Rate Up, Death Rate Is Down

**A**MERICA'S rate of population increase is up to six per 1,000 people. More babies were born in the United States last year than there were in 1937, and fewer of them died. Fewer of all of us died, as a matter of fact. There is a pretty good chance that, in spite of the "little depression," American health figures for the year will set a record.

A survey for the first half of 1938, recently published by the U. S. Public Health Service, indicates that:

"Another outstanding feature of the mortality record for the first six months of 1938 was the widespread decline in the infant mortality rate. Only five states reported a higher rate than for 1937, and the current rate is nearly nine per cent. less than that for last year.

"The birth rate for 1938 has continued slightly above that for 1937. This increase, combined with a lower death rate, has resulted in a crude rate of natural increase of 6.0 per 1,000 population, compared with the corresponding rate of 4.3 per 1,000 population for 1937.

For the population generally, the same six-month trend, if carried through the remainder of the year, will place the country's mortality rate at the lowest point on record, with the possible single exception of 1933. The rate for the first six months of 1938, 10.8 per 1,000 population, is only slightly higher than the

low rate for 1933 and represents a decrease of 8.5 per cent. from the rate for 1937.

The drop in the influenza-pneumonia death rate is an important factor in this decline; but almost all diseases show similar steep declines in the numbers of their victims. Improvements in the tuberculosis and maternity mortality situations are cited as most encouraging. The campaigns for greater traffic safety seem to be succeeding.

Cancer, however, continues its ominous creep; mortality from this disease increased three per cent. over that for the same months in 1937.

*Science News Letter, January 28, 1939*

#### AGRICULTURE

## Early Crop Improvement Held Mostly Unconscious

**H**OW did the first agricultural and pastoral peoples improve their crops and flocks? It is frequently assumed that primitive man showed a good deal of shrewdness, even wisdom, in selecting the foundation of next year's crop, of next generation's sheep and cattle. But Prof. J. B. S. Haldane, noted English biologist, thinks quite otherwise. Selection can be quite unconscious, he holds, and he thinks that in primitive times it was so, for the most part.

Writing in *The Modern Quarterly*, he points out, among other considerations, that "if one plant in a field produces twice as many grains as its neighbors it will, on the average, contribute twice as many individuals to next year's crop. Further, since most cereals and most leguminous plants are predominantly self-fertilized, high yield is strongly inherited, and thus unconscious selection is highly effective."

Automatic improvement of this kind occurs, however, only if the reproductive part of the plant is the thing it is grown for—seed in the case of grains, the tuber in the case of the potato. Conscious selection has to be exercised in picking out seeds or other propagules, if we are after thickness in stem, juiciness in leaves, or qualities of that kind. And it is notable that improvement in that class of crops has come later than in the grains and root-propagated vegetables.

With animals, the story is much the same. Our forefathers tended to keep for breeding purposes the earliest-maturing and most fertile of the animals they had domesticated. Indeed, those are prized qualities still. But in the wild state they may be even partial handicaps: "a female producing too large a litter, or too many eggs in a clutch, will be unable to rear most of her family."

*Science News Letter, January 28, 1939*